

We claim:

1. A Dynamic Radio Control Protocol for use by devices in a wireless communications environment wherein multiple channels are available for communication, comprising:

exchange of Claim messages between devices, wherein each device uses the claim messages it sends and receives to select a channel on which to communicate;

exchange of Announce messages between devices, wherein some devices send Announce messages to indicate their presence and their protocol capability to other devices;

exchange of Bid messages between devices, wherein a sending device sends a Bid message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device;

exchange of Accept messages between devices, wherein a sending device sends an Accept message to a receiving device in response to a Bid message to indicate that the sending device will allow the receiving device to communicate in the wireless communications environment via the sending device.

2. The protocol of claim 1 further comprising:

exchange of registration request messages between devices, wherein a sending device sends a registration request message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device using the Dynamic Radio Control Protocol;

exchange of registration acknowledge messages between wireless devices, wherein a sending device sends a Registration acknowledge message to a receiving device in response to a Registration Request message, to indicate that the sending device understands that the receiving device will communicate in the wireless communications environment using the Dynamic Radio Control Protocol.

3. The protocol of claim 1 wherein a Bid message is sent by a sending device to a receiving device if the sending device ascertains that the receiving device is likely to provide better wireless communications performance than another device through which the sending device is currently communicating.